

Abstract

A layer of nonconductive epoxy is applied to a semiconductor wafer by a screen-printing process before the wafer is separated into individual dice or chips. The epoxy layer is applied as a number of sublayers. Each of the
5 sublayers is cured, except for the final sublayer, which is partially cured. After the epoxy layer has been applied to the wafer, the wafer is separated into individual dice. Each of the dice is then attached to a die pad, a plurality of leads, or another die, using the preformed epoxy layer, by pressing the die against the die pad, leads or die at a selected force and temperature. Applying
10 the epoxy layer to the wafer in the manner described, before dicing, allows it to be made significantly thicker than a conventionally formed epoxy layer. This prevents a leakage current between the die and another element on which the die is mounted.